

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue of: U.S. Patent No. 5,599,804

Inventor: Laurence C. Mudge

Serial No.: 415,934

Filed: April 3, 1995

Granted: February 4, 1997

For: **FUNGICIDAL COMPOSITIONS FOR THE
ENHANCEMENT OF TURF QUALITY**

Commissioner for Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

SIR:

**REISSUE DECLARATION, POWER OF ATTORNEY,
CERTIFICATION BY ASSIGNEE UNDER 37 CFR § 3.73 (b)
AND OFFER TO SURRENDER PATENT UNDER 37 CFR § 1.178**

I hereby declare that:

- I. My residence, post office address and citizenship are stated below next to my
name.
- II. I am authorized to act in connection with the aforesaid U.S. Patent No. 5,544,804
("804 patent") and reissue application on behalf of the assignee, Bayer CropScience,
Inc., which is the assignee of the said patent and applicant of the subject reissue
application. All statements made herein are made on behalf of the assignee and reissue
applicant Bayer CropScience Inc.

III. Pursuant to 37 C.F.R. § 3.73(b), Bayer CropScience Inc. hereby certifies that it is the assignee of the entire right, title and interest in the above-identified '804 patent and reissue patent application, by virtue of an assignment from the inventor Laurence C. Mudge to Rhone-Poulenc Inc., which was recorded in the U.S. Patent and Trademark Office on June 8, 1995, at Reel 7517, Frame 0631. A copy of the Notice of Recordation thereof is attached as Exhibit A. The corporate name of Rhone-Poulenc Inc. was changed to Bayer CropScience, Inc., as follows: The name of Rhone-Poulenc Inc. was changed to Rhone-Poulenc Ag Company Inc. on or about May 29, 1998; the name Rhone-Poulenc Ag Company Inc. was changed to Aventis Crop Science U.S.A. Inc. as of January 5, 2000; and the corporate name of Aventis Crop Science USA Inc. was changed to its present name, Bayer CropScience, Inc., on or about September 20, 2002. True and accurate copies of the Certificates of Amendment showing the foregoing name changes are attached as Exhibit B.

IV. I hereby offer to surrender U.S. Letters Patent No. 5,559,804 pursuant to 37 C.F.R. § 1.178.

V. I believe Laurence C. Mudge to be the original inventor of the subject matter which is described and claimed in U.S. Patent No. 5,559,804 ("the '804 patent") granted on February 4, 1997, and for which a reissue patent is sought on the invention entitled, **"FUNGICIDAL COMPOSITIONS FOR THE ENHANCEMENT OF TURF QUALITY."**

- VI. I have reviewed and understand the contents of the '804 patent, and the subject reissue application, including the claims therein and specifically referred to in this oath or declaration.
- VII. I acknowledge the duty to disclose information known to me which is material to patentability as defined in 37 C.F.R. §§ 1.56 and 1.175(a)(7). In compliance with this duty, filed herewith is an Information Disclosure Statement and copies of the references cited therein in accordance with 37 C.F.R. § 1.98.
- VIII. All errors corrected by this reissue application up to the time of filing the oath or declaration under 37 C.F.R. § 1.175 occurred without any deceptive intent on the part of the applicant.
- IX. Pursuant to 37 C.F.R. § 1.175(a)(1), I verily believe that the '804 patent is wholly or partly inoperative or invalid by reason of applicant claiming more than he was entitled to claim, because of errors which arose without deceptive intention on the part of the applicant and assignee.

One such error being relied upon as a basis for reissue, which caused applicant to claim more than he was entitled to, arises when the claims are construed to embrace the presence of a fungicidal compound not mentioned in the claims, i.e. mancozeb. Under such a claim construction: (A) the method claims (claims 1-9) of the patent could be construed to embrace a method of combatting fungi and enhancing turf quality in turfgrass which comprises applying to said turfgrass synergistic fungicidally effective amounts of a monoester salt of a phosphorous acid of the specified formula (including the

compound known as “fosetyl-Al”), phthalocyanine and the fungicidal compound mancozeb; and (B) the fungicidal composition claims (claims 10-21) of the patent could be construed to embrace a mixture of a monoester salt of a phosphorous acid of the specified formula (including “fosetyl-Al”), phthalocyanine and the fungicidal compound mancozeb.

The foregoing possible claim construction, whereby the method and composition patent claims are construed to include the non-recited fungicidal compound mancozeb, does not appear to be consistent with the ‘804 patent specification at Column 5, lines 10-30. There it states: “The synergistic combinations [“first active agent” and benzoporphyrin/phthalocyanine] according to the invention may be used with advantage in admixture with one another or with other known fungicides, such as...” - - but mancozeb is not mentioned in the recited list of other known fungicides.

If the ‘804 patent claims were so construed to embrace a composition or method including mancozeb, the patent claims would be invalid over the prior art Lucas U.S. Patent 5,336,661, a reference of record and considered during the original prosecution for the ‘804 patent. The Lucas ‘661 patent describes in the Examples and Table 3 the treatment of crown and root rot with a mixture of the active fungicide ingredients of mancozeb plus fosetyl-Al, obtained by mixing together the commercial fungicides known under the names FORE™ (active ingredient: mancozeb) and ALIETTE™ (active ingredient: fosetyl-Al). See, e.g. ‘661 patent at Column 4, lines 45-65 and Table 3. As stated in the ‘804 patent at Column 7, lines 65-66, the fungicide FORE™ contains both mancozeb and Pigment Blue 15, which is a phthalocyanine dye.

The independent claims 1 and 10, as presented in the reissue application, are patentably distinguished over the prior art mixture of ALIETTE™ and FORE™ because they exclude mancozeb and therefore, the product FORE™.

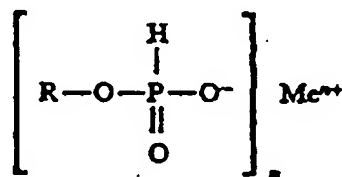
Two additional errors are sought to be corrected in the presented claims 1 and 10. In Patent claim 10, the term “tier” is changed to “for” to correct an obvious mistake. In Patent claim 1, the expression “1 part by weight of” has been relocated to apply to the “first active agent” including both components (i) and (ii), rather than only applying to component (i) as written in patent claim 1. This correction is consistent with patent claim 2 which refers to “1 part by weight” as pertaining to the “first active agent.” This is also consistent with patent claim 10 which applies the expression “1 part by weight” to the “first active agent”.

To illustrate the foregoing corrections, reproduced below are independent Claims 1 and 10, as presented in the reissue application (with underlining to denote language added to the original patent claims and brackets to indicate deletions):

1. *A method of combatting fungi and enhancing turf quality in turfgrass which comprises applying to said turfgrass synergistic fungicidally effective amounts of:*

(a) 1 part by weight of a first active agent selected from the group consisting of

(i) a monoester salt of a phosphorous acid of Formula (I):



*wherein: R is an alkyl radical having 2 to 4 carbon atoms,
Me is an alkali metal, alkaline earth, or aluminum atom, and*

n is a whole number from 1 to 3 equal to the valence of Me; and

(ii) phosphorous acid or an alkali or alkali earth metal salt thereof; and

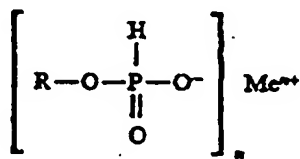
*(b) from 0.01 to 0.1 parts by weight of a phthalocyanine compound,
wherein said method does not include the application of the fungicide
mancozeb.*

* * *

*10. A fungicidal composition [tier]for enhancing turf quality which
comprises synergistic fungicidally effective amounts of an active material
comprising:*

*(a) 1 part by weight of a first active agent selected from the group
consisting of*

(i) a monoester salt of a phosphorous acid of Formula (I):



wherein:

R is an alkyl radical having 2 to 4 carbon atoms,

Me is an alkali metal, alkaline earth, or aluminum atom, and

n is a whole number from 1 to 3 equal to the valence of Me; and

(ii) phosphorous acid or an alkali or alkali earth metal salt thereof; and

(b) from 0.01 to 0.1 parts by weight of a phthalocyanine compound.

wherein the composition does not include the fungicide mancozeb

Another error being relied upon as a basis for reissue involves the failure to include in the patent any subgeneric composition and method claims which are limited to the first active agent denoted as “(ii)” in claims 1 and 10, namely phosphorous acid or an alkali or alkali earth metal salt thereof. New Claims 24-38 in the reissue application are directed to such subgeneric compositions and methods. New Independent claims 24 –38

are reproduced below:

24. A method of combatting fungi and enhancing turf quality in turfgrass which comprises applying to said turfgrass synergistic fungicidally effective amounts of:

(a) a first active agent selected from the group consisting of 1 part by weight of phosphorous acid or an alkali or alkali earth metal salt thereof; and

(b) from 0.01 to 0.1 parts by weight of a phthalocyanine compound.

* * *

32. A fungicidal composition for enhancing turf quality which comprises synergistic fungicidally effective amounts of an active material comprising:

(a) 1 part by weight of a first active agent selected from the group consisting of phosphorous acid or an alkali or alkali earth metal salt thereof; and

(b) from 0.01 to 0.1 parts by weight of a phthalocyanine compound.

X. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

XI. I hereby specify the following as the correspondence address to which all communications about this application are to be directed:

SEND CORRESPONDENCE TO: Arnold I. Rady
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154-0053

DIRECT TELEPHONE CALLS TO: Arnold I. Rady (212-758-4800)

XII. I hereby appoint the following attorneys and/or agents with full power of substitution and revocation, to prosecute this application, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

John C. Vassil (Reg. No. 19,098), Alfred P. Ewert (Reg. No. 19,887), David H. Pfeffer (Reg. No. 19,825), Harry C. Marcus (Reg. No. 22,390), Stephen R. Smith (Reg. No. 22,615), Kurt E. Richter (Reg. No. 24,052), Eugene Moroz (Reg. No. 25,237), John F. Sweeney (Reg. No. 27,471), Arnold I. Rady (Reg. No. 26,601), Christopher A. Hughes (Reg. No. 26,914), William S. Feiler (Reg. No. 26,728), Joseph A. Calvaruso (Reg. No. 28,287), James W. Gould (Reg. No. 28,859), Richard C. Komson (Reg. No. 27,913), Israel Blum (Reg. No. 26,710), Bartholomew Verdirame (Reg. No. 28,483), Maria C.H. Lin (reg. No. 29,323), Joseph A. DeGirolamo (Reg. No. 28,595), Michael P. Dougherty (Reg. No. 32,730), Seth J. Atlas (Reg. No. 32,454), Andrew M. Riddles (Reg. No. 31,657), Bruce D. DeRenzi (Reg. No. 33,676), Mark J. Abate (Reg. No. 32,527), John T. Gallagher (Reg. No. 35,516), Steven F. Meyer (Reg. No. 35,613), Kenneth H. Sonnenfeld (Reg. No. 33,285), Tony V. Pezzano (Reg. No. 38,271), Andrea L. Wayda (Reg. No. 43,979), Walter G. Hanchuk (Reg. No. 35,179), John W. Osborne (Reg. No. 36,231), Robert K. Goethals (Reg. No. 36,813), Peter N. Fill (Reg. No. 38,876), Kenneth S. Weitzman (Reg. No. 36,306), Richard Straussman (Reg. No. 39,847), Stephen J. Manetta (Reg. No. 40,426), Dorothy R. Auth (Reg. No. 36,434) and Michael O. Cummings, (Reg. No. 40,575) of Morgan & Finnegan, L.L.P. whose address is: 345 Park Avenue, New York, New York, 10154; and Michael S. Marcus (Reg. No. 31,727) and John E. Hoel (Reg. No. 26,279) of Morgan & Finnegan, L.L.P., whose address is 1775 Eye Street, Suite 400, Washington, D.C. 20006.

The undersigned is empowered to sign this document on behalf of the assignee,
Bayer CropScience Inc.

Name and title of individual signing: Bruce Mackintosh
Vice President, Secretary and General Counsel
Bayer CropScience, Inc.

Signature: _____

Date: _____

Citizenship of person signing: USA

Post Office Address of person signing: Bayer CropScience Inc., 2 T.W. Alexander Drive,
Research Triangle Park, North Carolina, 27709



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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

OCTOBER 22, 1995

PTAS

KENNETH D. SIBLEY
BELL, SELTZER, PARK & GIBSON, P.A.
POST OFFICE DRAWER 34009
CHARLOTTE, NC 28234



UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/08/1995

REEL/FRAME: 7517/0631
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MUDGE, LAURENCE C.

DOC DATE: 05/31/1995

ASSIGNEE:

RHONE-POULENC, INC.
2 T. W. ALEXANDER DRIVE
RESEARCH TRIANGLE PARK
NORTH CAROLINA
27709

SERIAL NUMBER: 08415934
PATENT NUMBER:

FILING DATE: 04/03/1995
ISSUE DATE:

TONYA LEE, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

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RECEIVED

OCT 17 1995

BELL, SELTZER, PARK & GIBSON

INDEXED

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CT-07

CT-07

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
RHONE-POULENC INC.

UNDER SECTION 805 OF THE BUSINESS CORPORATION LAW

2

Rhodia, Inc.
CN 7500
Cranbury, NJ 08512

STATE OF NEW YORK
DEPARTMENT OF STATE

FILED JUL 27 1998

TAX \$

BY: *SB*

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BILLED

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CT-07

CERTIFICATE OF AMENDMENT
OF THE CERTIFICATE OF INCORPORATION
OF
RHONE-POULENC INC.

UNDER SECTION 805 OF THE BUSINESS CORPORATION LAW

WE, THE UNDERSIGNED, THIERRY AMAT and
JOHN P. DONAHUE, being respectively the VICE PRESIDENT and
SECRETARY of Rhone-Poulenc Inc. hereby certify:

1. The name of the corporation is Rhone-Poulenc Inc.
2. The original certificate of incorporation of said corporation was filed by the Department of State on the 26th day of March, 1948 under the name Rhodia Inc., which name was changed on October 18, 1978.
3. The certificate of incorporation is amended to change the name of the corporation and the address of the principal place of business of the corporation:
(a) To effect the foregoing, Article I is amended to read as follows: The name of the corporation is Rhone-Poulenc Ag Company Inc.
4. The amendments were authorized in the following manner: by a quorum of the Board of Directors at a meeting of the Board of Directors held on May 29, 1998, by unanimous written consent of the Board of Directors and by consent of the sole shareholder of the corporation.

IN WITNESS WHEREOF, I have signed this certificate on the 1st day of July, 1998 and affirm that the statements contained therein as true under penalties of perjury.

Thierry Amat
Name: THIERRY AMAT
Title: VICE PRESIDENT

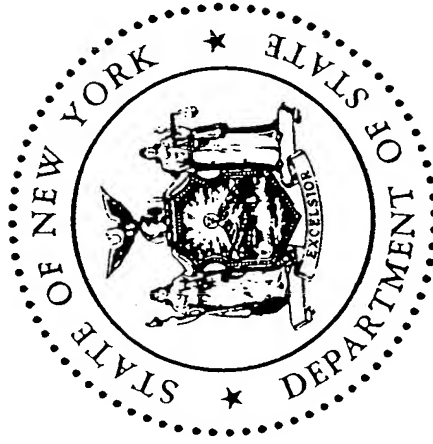
John P. Donahue
Name: JOHN P. DONAHUE
Title: SECRETARY

State of New York } ss:
Department of State }

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on

MAY 22 2000



A handwritten signature in cursive script, appearing to read "J. Clark".

Special Deputy Secretary of State

JAN 05 2000 15:57

CT CORPORATION

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CT-07

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
RHONE-POULENC AG COMPANY INC.

Under Section 805 of the Business Corporation Law

I, the undersigned, being the Secretary of Rhone-Poulenc Ag Company Inc. do hereby certify:

1. The name of the corporation is Rhone-Poulenc Ag Company Inc.

2. The original certificate of incorporation of the corporation was filed by the Department of State on March 26, 1948 under the name Rhodia Inc.

3. The certificate of incorporation is hereby amended to change the corporation's name.

Article I of the certificate of incorporation relating to the corporate name is amended to read as follows:

I. The name of the Corporation is Aventis CropScience USA Inc.

4. This amendment to the certificate of incorporation was authorized by the unanimous written consent of the Board of Directors of the corporation and by written consent of the sole shareholder of the corporation.

IN WITNESS WHEREOF, I have executed this Certificate of Amendment this 3rd day of January, 2000, and hereby affirm the truth of the statements contained herein under the penalties of perjury.

By /s/ Randall A. Jones
Name: Randall A. Jones
Title: Secretary

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JAN-05-2000 16:27

CT CORPORATION

1 518 463 6533 P.02

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CT-07

**CERTIFICATE OF AMENDMENT
OF
RHONE-POULENC AG COMPANY INC.
UNDER SECTION 805 OF THE
BUSINESS CORPORATION LAW**

ICC
STATE OF NEW YORK
DEPARTMENT OF STATE

JAN 0 5 2000

FILED

TAX \$

BY:

MMK
ny

JAN 5 4 47 PM '00

Skadden, Arps, Slate, Meagher & Flom LLP
CORPORATIONS DEPARTMENT
ONE RODNEY SQUARE
WILMINGTON, DE 19801-0000

2

DRAWDOWN

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State of New York } ss:
Department of State }

I hereby certify that the annexed copy has been compared with the original document filed by the Department of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on

OCTOBER 31, 2002



A handwritten signature in dark ink, appearing to read "R. A. D.", written over a horizontal line.

Secretary of State

F020920000 690

CSC 45

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
AVENTIS CROPSCIENCE USA INC.

Under Section 805 of the Business Corporation Law

1. The name of the Corporation is:

AVENTIS CROPSCIENCE USA INC.

2. The Certificate of Incorporation was filed by
the Department of State on the 26th day of March
1948 under the original name of RHODIA INC.

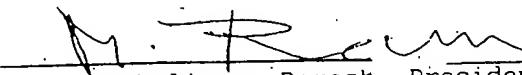
3. The Certificate of Incorporation is hereby amended
to change the corporation's name.

Paragraph One of the Certificate of Incorporation
is amended to read as follows:

" 1. The name of the corporation is:

BAYER CROPSCIENCE INC. "

4. This amendment to the Certificate of Incorporation was authorized by a vote of the Board of Directors followed by a vote of the holders of a majority of all outstanding shares entitled to vote thereon at a meeting duly held of the shareholders of the corporation.


Mahalingam Ramesh, President

2

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CSC 45

CERTIFICATE OF AMENDMENT

OF -

AVENTIS CROPSCIENCE USA INC.

Under Section 805 of the Business Corporation Law

Filer:

Aventis Cropscience USA LP
2 Tw Alexander Drive
Rtp, NC 27709
747002/sal

2002 SEP 20 PM 2:26

FILED

1CC
STATE OF NEW YORK
DEPARTMENT OF STATE

FILED SEP 20 2002

TAXS

BY: ESM

new YORK

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State of New York } ss:
Department of State }

I hereby certify that the annexed copy has been compared with the original document filed by the Department of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on

OCTOBER 31, 2002



Secretary of State